

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005578**Date Inspected:** 25-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

CWI Name:	Yu Dong Ping/Chen Chih-Ming			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** OBG cross beams and OBG segments**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG bay 19

This QA observed ZPMC qualified welding personnel identified as Mr. Shi Xian Qiang (062794) perform FCAW root weld on weld joint identified as BP026-003-002. ZPMC QC identified as Mr. Zhou Jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2231-U2-F.

This QA observed ZPMC qualified welding personnel identified as Mr. Xu Aihua (062816) perform SAW welding on weld joint identified as BP026-003-002. ZPMC QC identified as Mr. Zhou Jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA observed ZPMC qualified welding personnel identified as Mr. Liu Dafu (062756) perform FCAW repair welding on weld joint identified as BP025-002-002. ZPMC QC identified as Mr. Zhou Jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-FCAW-1G (1F)-FCM-repair.

This QA observed ZPMC personnel performing various functions relative to the fabrication of the cross beams and suspension brackets including fit up and tack welding cross beam bottom panel splice joints, stiffeners and

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suspension brackets, grinding, back gouging and hole drilling.

This QA observed ZPMC personnel flame straightening cross beam bottom panel identified as BP027-001-001 distorted by the SAW welding process. The flame straightening process did not appear to be compliant with the flame straightening procedure provided by ZPMC QC inspector. This QA informed ZPMC QC and ABF QA of an incident report concerning this issue. See attached photos.

This QA observed that ZPMC personnel have buttered the edge of SPCM Floorbeam component identified as FB215A-1. ZPMC was unable to produce a weld repair report indicating the reason for the buttering or the amount of buttering. This QA observed that the buttered area has been ground flush except at the end of the plate. This QA observed what appeared to be 8mm of buttering on the end of the plate that was not ground. See attached photos. This QA informed ZPMC QC and ABF QA of an incident report concerning this issue.

This QA observed ZPMC personnel freehand thermal cutting one edge of crossbeam diaphragm identified as FB210-002. Freehand burning is prohibited without the engineers approval according to AWS section 3. See attached photo. This QA informed ZPMC QC and ABF QA of an incident report concerning this issue.

OBG assembly bay 14

This QA observed ZPMC qualified welding personnel identified as Miss Lu Shiqin (044755) perform SAW welding on weld joint identified as SEG-038A-002 (SP533 to SP573). ZPMC QC identified as Mr. Li Ming Yang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA observed ZPMC qualified welding personnel identified as Miss Lu Shiqin (044755) perform SAW welding on weld joint identified as SEG-038A-005 (BP172 to BP064). ZPMC QC identified as Mr. Chen Chih-Ming was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2c-S-2.

This QA observed ZPMC qualified welding personnel identified as Miss Gao Min (050988) perform FCAW welding on deck panel U-rib to diaphragm joints. The deck panels were identified as DP-581 and 597. ZPMC QC identified as Mr. Li Ming Yang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133 and WPS-B-T-2233-Tc-U4b.

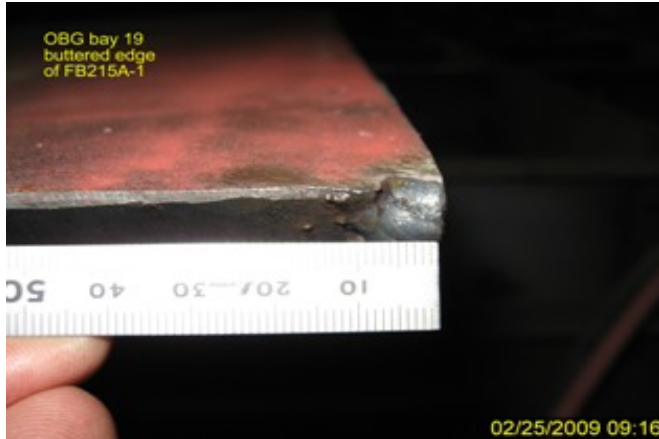
This QA observed ZPMC qualified welding personnel identified as Mr. Zhao Guanglin (044779) perform SMAW welding on deck panel U-rib to diaphragm joints. The deck panel is identified as DP-586. ZPMC QC identified as Mr. Chen Chih-Ming was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2112.

This QA observed ZPMC qualified welding personnel identified as Mr. Tang Xinjian (066041) perform FCAW welding on deck panel U-rib to diaphragm joints. The deck panel is identified as DP-617. ZPMC QC identified as Mr. Chen Chic-Ming was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2133 and WPS-B-T-2233-Tc-U4b.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall, Steven	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer
